

OHIO E.P.A.
MAY -3 90
ENTERED DIRECTOR'S JOURNAL

Director's Final Findings and Orders

By: Mark Green Date 5-2-90

CHIEF DIRECTOR'S JOURNAL
MAY 3 - 90
4

3. DAP operates a tanker transfer area at the Facility one or more of the chemicals referenced in Finding were known to be spilled or otherwise placed onto surface soils.
4. DAP transferred the chemicals referenced in Finding 2 from tankers into the plant building. These chemicals have been spilled or otherwise placed onto the surface soils at this transfer area.
5. Ground water samples from the Facility indicate the presence of the following:

1,1-Dichloroethane ("DCA")	up to	510	ppb
1,2-DCA	up to	410	ppb
1,1-Dichloroethylene ("DCE")	up to	15	ppb
trans 1,2-Dichloroethylene	up to	6	ppb
cis 1,2-Dichloroethylene	up to	1.1	ppb
1,1,1-TCA	up to	1,600	ppb
Toluene	up to	4.8	ppb
Tetrachloroethylene	up to	3	ppb
TCE	up to	14	ppb

6. Soil samples from the Facility around the tanker transfer area and underground storage tank area indicate the presence of the following:

1,2-DCA	up to	280	ppb
1,2-DCE	up to	150	ppb
1,1,1-TCA	up to	12,000	ppb
TCE	up to	81	ppb
Carbon Tetrachloride	up to	305	ppb
Toluene	up to	172	ppb
1,1-DCA	up to	1,200	ppb

7. The City of Dayton's Miami Well Field is located 2000 feet, northeast and hydraulically downgradient of the Facility.
8. 1,1-DCA has been detected in production well #15 in the Miami Well Field.
9. 1,1-DCA (71 ppb) has been detected in a private drinking water well located at 215 Heid Avenue, which is located between the Facility and the Miami Well Field.
10. 1,1-DCA (28 ppb), TCA (5.4 ppb) and TCE (5.9 ppb) have been detected in an industrial well at Speciality Machine Co., Inc., 212 Heid Avenue, which is located between the Facility and the Miami Well Field.

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

Sv: *M. J. Carr* Date: *5-3-90*

11. TCE, 1,1-DCE, 1,2-cis DCE, 1,2-trans DCE, 1,1-DCA, Toluene, Carbon Tetrachloride, Tetrachloroethylene, and 1,1,1-TCA are "industrial wastes" and/or "other wastes" as defined in ORC 6111.01(C) and (D), and/or "hazardous wastes" as defined in ORC 3734.01(J), and/or "hazardous substances" as defined in Section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act, as amended, 42 USC 9601 et seq. (CERCLA).
12. The discharge, deposit, injection, dumping, leaking, spilling, or placing of TCE, 1,1-DCE, 1,2-cis DCE, 1,2-trans DCE, Toluene, Carbon Tetrachloride, Tetrachloroethylene, and/or 1,1,1-TCA into or onto the soil, ground water, and surface water at or from the Facility constitutes "disposal" of hazardous waste as defined in ORC 3734.01(F).
13. The DAP plant located at 220 Janney Road is a "Facility" as that term is defined in ORC Section 3734.01(N).
14. The migration and threatened migration of these industrial wastes, other wastes, and/or hazardous wastes and substances into the soil, ground water, and/or surface water at or from the Facility, constitutes "a release or threat of a release" as that term is defined in Section 101(22) of CERCLA, and an unpermitted discharge of industrial waste, other wastes, and/or hazardous wastes and substances into "waters of the state", as that term is defined in ORC Section 6111.01(H). The unpermitted discharge of industrial waste, other wastes, and/or hazardous wastes and substances into "waters of the state" is prohibited by ORC 6111.04.
15. Respondents disposed of hazardous wastes at the Facility within the meaning of ORC 3734.20 and have placed or caused to be placed industrial wastes or other wastes within the meaning of ORC 6111.04.
16. The release or disposal of industrial waste and/or hazardous waste from the Facility constitutes a substantial threat to public health or safety or is causing or contributing to or threatening to cause or contribute to air or water pollution or soil contamination within the meaning of ORC 3734.20(B).
17. Respondents have been "owner"s or "operator"s within the meaning of Section 107(a) of CERCLA of a "facility" as that term is defined in Section 101(9) of CERCLA.
18. Respondents are potentially "responsible person"s within the meaning of Section 107 of CERCLA. Respondents are "person"s.

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mason Cavan Date 5-3-90

ENTERED RA.
MAY -3-90
ENTERED DIRECTOR'S JOURNAL

as defined in Section 101(21) of CERCLA, and ORC Section 3734.01(G) and 6111.01(I).

19. The Director finds that the issuance of these Orders furthers the intent of General Assembly, and that actions required by this Consent Order are reasonable and will prevent and abate pollution of the environment for the health, safety, welfare, and property of the people of the State of Ohio.
20. Based upon information available to the Director as set forth in these Findings of Fact, the Director has determined that the work required by the Orders, set forth below, is in the nature of interim measures only, designed to contain, abate, and mitigate contamination.
21. The Director has given consideration to, and based his determination on evidence relating to the technical feasibility and economic reasonableness of complying with these Orders and on evidence relating to conditions calculated to result from compliance with these Orders, and its relation to the benefits to the people of the State of Ohio to be derived from such compliance in accomplishing the purpose of ORC Chapter 6111.

IV. ORDERS

Respondents shall perform the following work:

1. Delineation and Verification of Ground Water Contamination

Within 15 days of the effective date of this Order, Respondents shall submit an Investigation Workplan to conduct a ground water investigation to verify the characterization of the contamination at or near the Facility to the extent necessary to design a containment system that mitigates off property migration of contamination through ground water gradient control. This investigation shall at a minimum provide the following information:

- a. A description of the horizontal and vertical direction of ground water flow and contaminant migration;
- b. The velocity of ground water flow and contaminant movement;

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Caver Date 5-3-90

OHIO E.P.A.
MAY -3 90
ENTERED DIRECTOR'S JOURNAL

- c. The concentration of the chemical constituents from wells using USEPA method 624. Respondents shall propose and OEPA shall approve which wells will be analyzed for the chemical constituents; and
- d. An evaluation of factors influencing ground water flow and contaminant movement.

At a minimum, the Investigation Workplan shall include:

- a. A narrative discussion of the hydrogeologic conditions at the Facility; identification of potential contaminant pathways;
- b. Description of the current and proposed ground water monitoring system(s);
- c. Description of the investigatory approach needed to analyze existing data, identify data gaps, and collect new data to design and implement the system;
- d. Discussion of the number, location, and depth of wells to be installed and information on the design and construction of the wells; and
- e. A description of the Sampling and Analytical Plan to be used to obtain ground water monitoring and analytical data. The Sampling and Analytical Plan shall at a minimum outline procedures for:
 - i. measurement of ground water elevations and depth to the bottom of the well;
 - ii. evacuation of the well and withdrawal of the sample;
 - iii. analysis of in-situ/field measured parameters including detection limits; and
 - iv. preservation and handling of samples, including duplicate analysis at separate laboratories for designated samples.

Within 12 days following transmission of OEPA's comments on the proposed Investigation Workplan, Respondents shall revise the Investigation Workplan in accordance with OEPA's comments and resubmit the Investigation Workplan. Within 5 days following OEPA approval or modification of the

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Bruce Caven Date 5-2-90

OHIO EPA
MAY -3 90
ENTERED DIRECTOR'S JOURNAL

Investigation Workplan, Respondents shall implement the Investigation Workplan in accordance with the schedule contained therein.

2. Ground Water Extraction and Gradient Control

According to the schedule contained in the Investigation Workplan, Respondents shall submit for OEPA review and comment a Design Workplan for the design, installation, operation and maintenance of extraction wells that will establish hydraulic gradient control to prevent farther migration of contaminants from sources at the Facility. The Design Workplan shall include and be supported by an analysis that includes, at a minimum:

- a. A report of the ground water contamination investigation as described in Section IV., 1. of this Order; and
- b. Discussion of the technical factors of importance for the installation of the wells including:
 - i. selection of the number of wells and their location based on the hydrogeology of the site, location of the plume, and the type and amount of contaminants present in the ground water;
 - ii. well design and construction equipment and specifications (i.e., pumps, pipes, tanks, etc.), pumping cycles and rates, wastewater disposal and treatment, and the area of influence for each withdrawal well;
 - iii. ground water flow direction(s) and factors that influence the flow; and
 - iv. how treatment, storage, or disposal of contaminated ground water pumped out of the extraction wells or drains will comply with state law and requirements. Respondents shall obtain any permits necessary for the implementation of the obligations contained herein.

Within 12 days following transmission of OEPA's comments on proposed Design Workplan, Respondents shall revise the Design Workplan in accordance with OEPA's comments and resubmit the Design Workplan. Within 15 days following OEPA approval or modification of the Design Workplan, Respondents shall implement the Design Workplan in accordance with the schedule contained therein.

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Maria Carver Date 5-2-90

OHIO EPA
MAY -3 90
ENTERED DIRECTOR'S JOURNAL

3. Within 60 days after the installation and startup of the pumping system outlined in the above paragraph, Respondents shall submit to OEPA a report showing the effectiveness of the pumping, the area of influence, drawdown times, aquifer parameters (i.e. conductivity, transmissivity, storativity) and any changes in operation necessary to collect or contain the contaminated ground water. If based on the report, OEPA determines that the wells are insufficient to adequately collect or contain the contaminated ground water, additional wells shall be proposed by Respondents. Within 30 days following transmission of OEPA's comments on the report, Respondents shall provide a Supplemental Workplan for an upgraded system in accordance with OEPA's comments. Within 15 days following OEPA approval or modification of the Supplemental Workplan, Respondents shall implement changes in operation necessary to collect and effectively contain contaminated ground water including the installation of additional wells.
4. Beginning the month after the effective date of this Order and every month thereafter until termination of these Orders, Respondents shall provide to OEPA monthly progress reports by the 15th of each month, covering the previous month, that shall include, at a minimum:
 - a. A description and estimate of the percentage of the interim measures completed;
 - b. Summaries of all findings, including flow maps, and when appropriate, pumping rates and treatment efficiency;
 - c. Summaries of all changes made in the interim measures during the reporting period;
 - d. Summaries of all contacts with representatives of the local community, public interest groups or State government during the reporting period concerning work being done as a result of this Order;
 - e. Summaries of all problems or potential problems encountered during the reporting period;
 - f. Actions being taken to rectify problems;
 - g. Changes in key personnel during the reporting period;
 - h. Projected work for the next reporting period; and

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Cavan Date 5-3-90

OHIO E.P.A.
MAY -3 90
ENTERED DIRECTOR'S OFFICE

- i. Copies of daily reports, inspection reports, tabulated laboratory and monitoring data, QA/QC reports, etc
5. Respondents shall require all laboratories or contractors to simultaneously deliver all raw monitoring and analytical data to OEPA and Respondents.
6. Respondents shall prepare and deliver all reports required in this Order or the workplans according to the schedules contained in the workplans.

V. OTHER CLAIMS

Nothing in these Orders shall constitute or be construed as a release from any claim of action or demand in law or equity against any person, firm, partnership, or corporation, not subject to these Orders for any liability arising out of or relating to the operation of the Facility.

VI. OTHER APPLICABLE LAWS

All work required to be taken pursuant to these Orders shall comply with the requirements of applicable local, state, and federal laws and regulations and shall be consistent with the National Contingency Plan ("NCP") 40 CFR Part 300, as amended. Nothing in these Orders shall be construed as waiving or compromising in any way the applicability and enforcement of any other statutes or regulations applicable to Respondents' operation of their facility. The OEPA reserves all rights and privileges except as specified herein.

VII. REIMBURSEMENT OF COSTS

OEPA has incurred and continues to incur oversight and response costs in connection with the Facility. Within thirty (30) days of the receipt of the first accounting of these costs incurred up to the effective date of the Order, Respondents shall remit a check to OEPA for the full amount claimed. Thereafter, at the termination of this Order, OEPA shall submit to the Respondents an itemized statement of such costs of the OEPA for the duration of this Order. Following receipt of the itemized statement, Respondents shall pay, within thirty (30) calendar days, the full amount claimed. Payment to OEPA shall be made to the Ohio Hazardous Waste Clean-up Special Account created by ORC Section 3734.28 by check payable to "Treasurer, State of Ohio" and shall be forwarded to Counsel for Director of Environmental Protection.

I certify this to be a true and accurate copy of the original document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Carr Date 5-3-90

ENTERED DIRECTOR'S JOURNAL
MAY 3 1990

P. O. Box 1049, 1800 WaterMark Drive, Columbus, Ohio 43266-1049.
A copy of the transmittal letter shall be sent to the Project Coordinator, and Pat Cambell.

VIII. NOTICE

All documents demonstrating compliance with these Orders and other documents required under these Orders to be submitted to the OEPA shall be addressed to:

Ohio Environmental Protection Agency
Southwest District Office
40 South Main Street
Dayton, OH 45402
Attn: Emmanuel A. Ayeni

and

Ohio Environmental Protection Agency
1800 WaterMark Drive
P. O. Box 1049
Columbus, OH 43266-0149
Attn: Removal Coordinator, DERR

unless otherwise specified in these Orders or to such persons and addresses as may hereafter be otherwise specified in writing.

IX. RESERVATION OF RIGHTS

Nothing contained herein shall be construed to prevent Ohio EPA from (1) seeking legal or equitable relief to enforce the terms of these Orders including penalties against Respondents for noncompliance or claims for natural resources damages; or (2) completing any work described in these Orders. OEPA reserves the right to take any enforcement action, recover costs, or seek damages for injury to natural resources pursuant to any available legal authority for past, present, or future violations of ORC Chapters 3734 or 6111, conditions at the Facility, or releases of hazardous substances.

OEPA reserves the right to perform or require Respondents to perform additional investigation, removal, or remediation (including ground water investigation or remediation) pursuant to ORC Chapters 3734 or 6111 or other authority for these or any other conditions.

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Cavan Date 5-5-90

OHIO E.P.A.
MAY -3 90
ENTERED DIRECTOR'S JOURNAL

X. TERMINATION

These Orders shall terminate upon Respondents' receipt of written notice from OEPA that Respondents have demonstrated, to the satisfaction of OEPA, completion of all obligations of these Orders.

IT IS SO ORDERED:

Richard L. Shank, Ph.D.
Director

4/30/90
Date

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: James Cavan Date 5-3-90

OHIO E.P.A.

MAY - 3 1990

ENTERED DIRECTOR'S JOURNAL